

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P855163

Luminaire Tested: SQ2-PH1-075U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855163
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-075U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

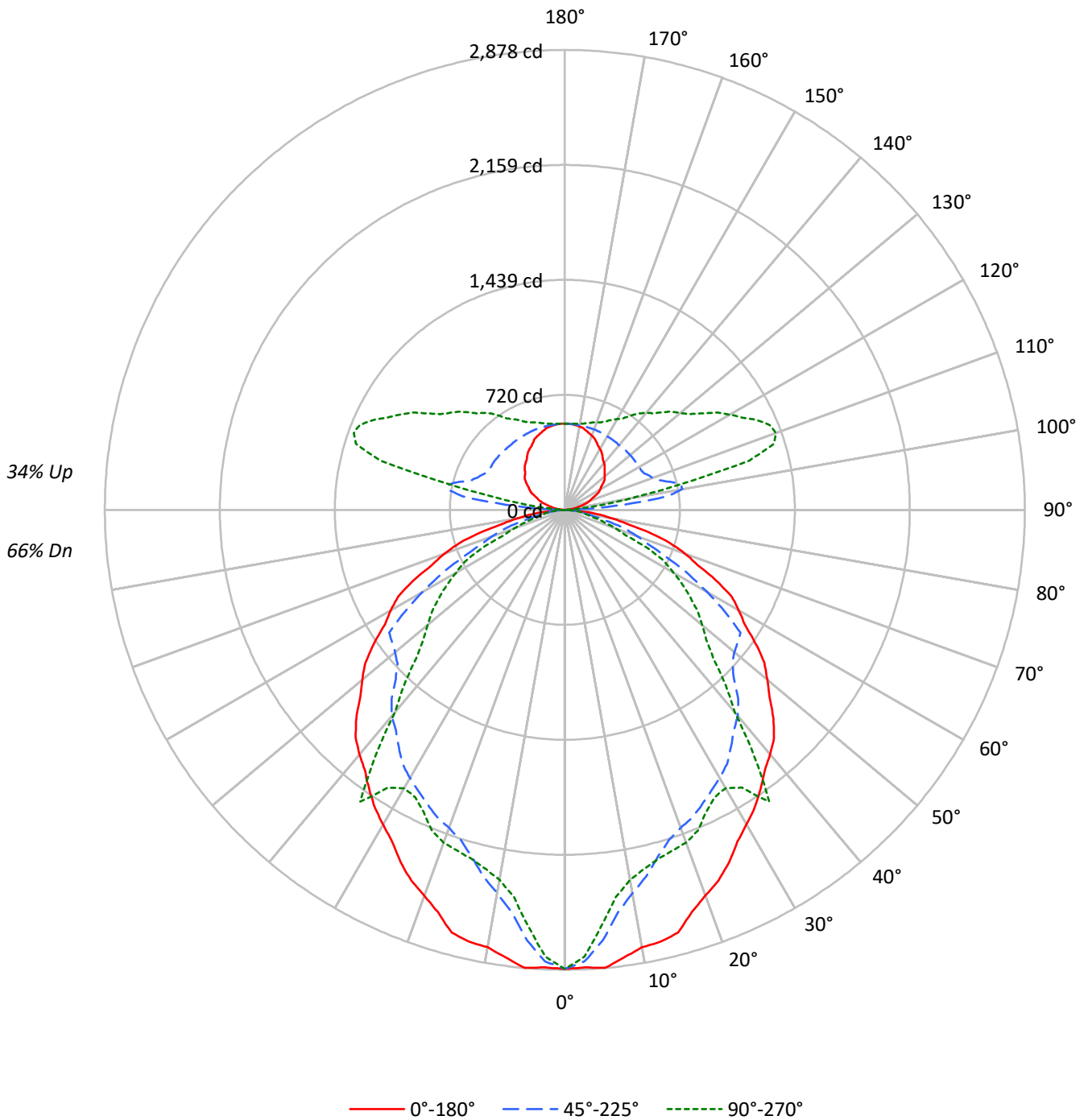
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9695.6 lumens
Efficiency: N/A
Efficacy: 133.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 72.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66				
1	102	97	93	90	95	92	88	85	81	79	76	72	70	68	63	61	60	56				
2	93	85	79	74	87	80	75	70	71	67	64	63	60	57	55	53	51	47				
3	85	75	68	62	79	71	64	59	63	58	54	56	52	48	49	46	44	40				
4	78	67	59	52	73	63	56	50	56	50	46	50	45	42	44	41	38	34				
5	71	59	51	45	67	56	49	43	50	44	40	45	40	36	40	36	33	30				
6	66	53	45	39	62	51	43	38	46	39	35	41	36	32	36	32	29	26				
7	61	48	40	35	57	46	39	33	41	35	31	37	32	28	33	29	26	23				
8	57	44	36	31	53	42	35	30	38	32	27	34	29	25	30	26	23	21				
9	53	40	33	27	50	38	31	27	35	29	25	31	26	23	28	24	21	19				
10	49	37	30	25	46	35	29	24	32	26	22	29	24	21	26	22	19	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46377	46377	46377
5°	46644	43853	42391
10°	45570	39923	38535
15°	45775	37553	37782
20°	44142	36393	38084
25°	43333	36225	37198
30°	42394	36126	37502
35°	42072	35715	43958
40°	42107	35485	34851
45°	42124	34134	30015
50°	41533	34804	28148
55°	41005	37774	27004
60°	40597	33093	25330
65°	39889	26835	22032
70°	37671	22839	15739
75°	33587	17218	11940
80°	27438	11186	11186
85°	17210	10133	7595

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42124 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	2.6
10°-20°	664.8	6.9
20°-30°	974.8	10.1
30°-40°	1180.5	12.2
40°-50°	1160.9	12.0
50°-60°	1010.6	10.4
60°-70°	702.6	7.2
70°-80°	333.1	3.4
80°-90°	74.0	0.8
90°-100°	204.1	2.1
100°-110°	676.6	7.0
110°-120°	671.6	6.9
120°-130°	547.0	5.6
130°-140°	444.6	4.6
140°-150°	345.2	3.6
150°-160°	248.7	2.6
160°-170°	152.3	1.6
170°-180°	51.5	0.5
0°-30°	1892.4	19.5
0°-40°	3072.9	31.7
0°-60°	5244.4	54.1
0°-90°	6354.1	65.5
90°-120°	1552.3	16.0
90°-150°	2889.0	29.8
90°-180°	3342.0	34.5
0°-180°	9695.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2872	2872	2872	2872	2872	
5°	2878	2875	2706	2621	2616	271
15°	2738	2439	2247	2231	2260	763
25°	2432	2069	2033	2096	2088	1119
35°	2134	1726	1812	1968	2230	1337
45°	1845	1366	1495	1547	1314	1418
55°	1457	1064	1342	967	959	1301
65°	1044	731	702	577	577	1026
75°	538	373	276	197	191	571
85°	93	61	55	44	41	124
90°	0	1	3	4	4	4
95°	29	86	370	132	88	33
105°	118	169	677	1278	1194	125
115°	211	253	545	1135	1327	209
125°	295	328	535	892	1051	262
135°	353	389	531	766	864	273
145°	410	441	530	658	721	257
155°	468	485	533	588	610	216
165°	514	519	535	557	562	145
175°	537	537	539	542	541	51
180°	540	540	540	540	540	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2872.4	2872.4	2872.4	2872.4	2872.4
2.5°	2865.8	2895.8	2828.7	2802.3	2798.0
5°	2877.9	2875.2	2705.7	2620.8	2615.5
7.5°	2825.4	2742.6	2540.1	2446.5	2442.2
10°	2779.5	2653.9	2435.1	2350.4	2350.4
12.5°	2768.6	2570.2	2349.9	2287.3	2300.1
15°	2738.5	2439.2	2246.6	2230.8	2260.3
17.5°	2639.0	2316.7	2166.2	2202.0	2236.2
20°	2569.1	2251.0	2118.1	2184.5	2216.5
22.5°	2510.0	2187.7	2083.2	2155.7	2172.8
25°	2432.4	2069.0	2033.4	2096.1	2088.0
27.5°	2339.5	1960.0	1983.6	2022.1	2026.8
30°	2273.9	1894.4	1937.7	1976.8	2011.5
32.5°	2210.5	1818.1	1887.4	1980.0	2059.6
35°	2134.5	1725.7	1812.0	1968.3	2230.2
37.5°	2054.6	1616.5	1736.0	1867.5	1950.9
40°	1997.8	1538.2	1683.6	1845.9	1653.5
42.5°	1936.6	1476.9	1604.8	1814.4	1489.5
45°	1844.8	1366.5	1494.9	1547.1	1314.5
47.5°	1736.5	1280.7	1420.6	1290.1	1199.2
50°	1653.5	1223.2	1385.6	1179.3	1120.6
52.5°	1572.6	1163.7	1361.6	1088.0	1048.4
55°	1456.7	1063.9	1341.9	967.3	959.3
57.5°	1333.7	962.3	1186.7	862.3	876.2
60°	1257.2	896.4	1024.8	800.4	784.4
62.5°	1176.3	832.7	874.0	721.7	705.7
65°	1044.1	731.4	702.4	576.7	576.7
67.5°	898.7	626.0	569.0	471.9	407.7
70°	798.0	557.6	483.8	376.2	333.4
72.5°	690.9	484.6	396.3	308.3	259.0
75°	538.4	372.8	276.0	196.7	191.4
77.5°	389.2	268.4	185.8	146.0	146.4
80°	295.1	204.3	120.3	117.6	120.3
82.5°	207.7	140.3	89.6	93.5	94.0
85°	92.9	60.9	54.7	43.7	41.0
87.5°	19.7	17.8	11.7	11.9	11.9
90°	0.0	1.1	3.4	4.4	4.4
92.5°	8.9	34.5	101.7	32.9	27.7
95°	29.1	85.9	369.8	132.0	88.3
97.5°	53.4	112.8	645.6	376.5	238.0
100°	70.4	127.2	747.6	642.1	425.7
102.5°	89.2	144.3	741.2	981.3	741.2
105°	118.5	168.7	677.2	1277.5	1194.5
107.5°	148.4	193.2	615.7	1307.6	1370.8
110°	165.3	210.1	584.4	1277.9	1405.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	183.2	227.1	565.6	1225.0	1387.9
115°	211.2	252.7	545.3	1135.2	1327.4
117.5°	238.9	275.8	537.9	1049.4	1251.1
120°	255.9	292.0	535.3	995.6	1191.2
122.5°	271.0	306.2	535.3	951.4	1132.1
125°	295.0	327.7	535.3	892.0	1051.4
127.5°	314.7	346.7	533.9	846.9	983.3
130°	326.3	360.2	533.0	820.7	943.1
132.5°	337.0	371.8	532.1	799.0	909.1
135°	353.1	389.2	530.8	765.5	863.8
137.5°	370.5	405.2	529.4	733.0	819.8
140°	382.2	416.0	528.5	711.4	791.1
142.5°	392.9	425.8	529.4	689.7	760.7
145°	410.1	440.7	529.6	658.4	720.8
147.5°	428.7	454.2	529.8	631.9	678.3
150°	440.2	463.2	530.8	616.5	655.9
152.5°	451.0	473.0	531.7	603.9	635.3
155°	468.2	484.6	533.0	588.2	610.1
157.5°	484.9	497.6	534.4	577.1	592.7
160°	493.9	504.8	535.3	569.0	581.0
162.5°	502.8	511.2	535.3	563.6	573.0
165°	514.0	519.4	535.3	556.6	562.1
167.5°	524.3	527.1	536.4	550.3	553.2
170°	529.6	530.8	536.4	547.5	548.6
172.5°	533.2	534.4	537.2	544.9	545.1
175°	537.4	537.4	538.6	542.0	540.8
177.5°	539.7	539.7	538.8	540.6	538.8
180°	539.7	539.7	539.7	539.7	539.7



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	21.98	22.99	22.80	23.83	24.86	20.66	21.67	21.47	22.50	23.53
	3H	24.02	24.93	24.85	25.77	26.83	21.70	22.61	22.53	23.45	24.51
	4H	24.76	25.61	25.60	26.46	27.54	21.92	22.78	22.77	23.63	24.70
	6H	25.25	26.04	26.11	26.90	27.98	22.08	22.86	22.93	23.72	24.81
	8H	25.38	26.13	26.25	27.01	28.09	22.11	22.86	22.98	23.74	24.82
	12H	25.43	26.14	26.30	27.02	28.13	22.12	22.83	22.99	23.70	24.81
4H	2H	22.38	23.23	23.23	24.08	25.15	21.32	22.17	22.16	23.02	24.09
	3H	24.50	25.21	25.36	26.09	27.18	22.51	23.22	23.37	24.11	25.19
	4H	25.32	25.97	26.19	26.85	27.96	22.79	23.44	23.67	24.32	25.43
	6H	25.91	26.47	26.80	27.38	28.49	23.01	23.57	23.90	24.47	25.59
	8H	26.09	26.61	26.98	27.51	28.64	23.07	23.59	23.96	24.49	25.62
	12H	26.16	26.63	27.07	27.55	28.68	23.08	23.55	23.99	24.47	25.61
8H	4H	25.35	25.87	26.24	26.77	27.90	23.02	23.54	23.91	24.44	25.57
	6H	26.01	26.44	26.93	27.38	28.51	23.30	23.73	24.22	24.67	25.80
	8H	26.23	26.61	27.16	27.55	28.69	23.40	23.78	24.33	24.72	25.86
	12H	26.35	26.69	27.28	27.62	28.81	23.45	23.79	24.38	24.71	25.91
12H	4H	25.31	25.78	26.22	26.70	27.83	23.02	23.49	23.93	24.41	25.55
	6H	25.98	26.36	26.91	27.30	28.44	23.33	23.71	24.26	24.65	25.79
	8H	26.22	26.56	27.15	27.48	28.68	23.45	23.79	24.38	24.71	25.91